Moving to ‘Living’ Stroke Clinical Guidelines

LSR Network April 2018
Kelvin Hill
Background

- Guidelines since 2003
-trying to collaborate internationally since 2006
- Normally 2 year updating cycle
- Train and use volunteer experts
- Advocating for living guidelines for many years

Previous versions:
2003; 2005; 2007; 2010; 2017

National Stroke Audit since 2007.
Current challenges

1. Volume of literature (~110,000 citations -267% increase)
2. Project management – ongoing engagement of busy experts, definitions of ‘living’, public consultation process
3. No central agency for guidelines in Australia (and robust but slow approval process by NHMRC)
4. Impact on knowledge translation +++
5. Potential impact on performance indicators
6. Funding…
Possible solutions?

1. Clear prioritisation decisions for key topics
2. Collaboration with Cochrane Stroke Group
3. Consistent methodology (GRADE etc)
4. Online tools (MAGICapp, Covidence etc).
5. International collaboration
6. Sell kidneys on black market…(joke)
New Cochrane Review Ecosystem

1. Develop question
   - Plan methods
   - Cochrane Review Groups

2. Write & publish protocol
   - Rev Man Web
   - Archie

3. Develop search
   - Linked Data tools
   - Evidence Pipeline

4. Run search
   - EPPI Reviewer
   - Cochrane Crowd

5. Information specialists

6. Select studies
   - GRADE Pro GDT
   - MAGIC app

7. Collect data
   - CRS-D
   - Covidence

8. Assess risk of bias
   - CRBs
   - Archie

9. Analyze data
   - GRADE Pro GDT
   - MAGIC app

10. Interpret findings
   - EPPI Reviewer

11. Write & publish review
   - CRBs
   - Archie

Communities

Process

Applications

Data Stores

Authors

Plan

Search

Write

Analyze
Where to from here?

› Collaboration with Cochrane Stroke Group for literature identification
› Prioritisation criteria – what are others using?
› Successful international collaboration?
› Advocacy with Australian Government+++ to fund model
› Communication with NHMRC and testing approval of updated guideline
Questions?
Living Systematic Review Network

Jonathan Kay
Research and Publications Manager
Education Endowment Foundation
Who we are …

• The EEF was founded in 2011 by lead charity the Sutton Trust, in partnership with Impetus, with a £125m founding grant from the UK Department for Education.

• In 2013, the EEF and the Sutton Trust joined the What Works Network, as the designated What Works Centre for Improving Education Outcomes for School-aged Children.

• The EEF aims to cut the link between family income and educational achievement through promoting the use of evidence.

• The EEF summarises and disseminates existing evidence, and funds new RCTs of promising approaches.

160 EEF-funded projects
£96.3 million total funding committed
1,168,983 children and young people reached
10,695 schools, nurseries, colleges involved
<table>
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<th>Impact (months)</th>
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A live ‘umbrella review’ to a review of single studies

The current Toolkit summarises and averages meta-analyses.

The future Toolkit will summarise and average the information from single studies.

Feedback:
High impact for very low cost, based on moderate evidence.
The plan

Stage 1: 2018-2021

• A large database of around 10,000 studies coded for around 100 variables
• Studies will be collected by unzipping the current meta-analysis in the Toolkit
• Pilot data-visualisation tools to display differential impacts (for example, by age groups, country)
• Develop machine learning tools for future searching and screening
• Pilot systematic search criteria for stage 2

Stage 2: 2021 onwards

• Move towards 34 living systematic reviews
• Clearly specified search and screening criteria that are consistent across all 34 topics
• Non-English language studies
• Evaluation reporting templates that allow for easy data extraction for all EEF studies
• A shared global coding frame for education studies?
Challenges

- Creating shared inclusion criteria across 34 topics
- Keeping 34 living systematic reviews up to date
- Balancing search and sift accuracy with studies found through unzipping initial meta-analyses

- Balancing simple presentation with more complex messages
- Communicating why the estimates have changed
Questions
Living guidelines

Kay Nolan
Associate Director
Centre for Guidelines
National Institute of Health and Care Excellence (NICE)

- Independent organisation responsible for providing evidence based guidance on health and social care
- Established in 1999
- Range of guidance
  - Guidelines programme
  - Other guidance e.g. Technology appraisals, Diagnostics
NICE guidelines programme

• 289 guidelines

• Approx. 70 in development

• Portfolio in excess 300 guidelines

• Wide range of topics – health, public health and social care

• Range in size number of recommendations

• Effectiveness & cost effectiveness
Core principles

Accountability for reasonableness

- Scientific Rigour
- Translucence
- Transparency
- Independence
- Challenge
- Review
- Relevant
- Timely
How do we keep on top of a large portfolio?

• Regular review (surveillance) – 2 year cycle unsustainable, resource reduction

• Currently consulting on alternative approach
  • Themed surveillance
  • Increased intelligence gathering
  • Development of Event tracker
  • Switch to 5 year review cycle
Living guidelines - challenges

Working definition: constant updating of guideline in response to evidence change

• Organisational: historical heterogeneity in guidelines, breadth of topics and approaches taken, core principles and impact on presentation, volume of guidelines, structure of work programme

• Stakeholder expectations/requirements: Cultural shift required?

• Dynamic review questions – experience

• Heterogeneity in type of evidence– ‘best available evidence’

• Is the unit a guideline or recommendation?
Solutions?

• Exploring technological solutions – use of NLP/text mining technologies
• Interim approach - Event tracker – proactive reactive approach
• Strengthen relationships e.g. NIHR and Cochrane
• Try alternatives for key guidelines?
Event tracker

• Track key events of relevance to guideline content (criteria for inclusion)

• As soon as the event has occurred or findings are available they are checked for likely impact

• Events:
  • A study that is directly relevant to NICE guidance
  • Substantial changes in policy and legislation
  • Development of a related piece of NICE guidance

• Sources of events:
  • Identified through surveillance or guideline development
  • Stakeholder correspondence/enquiries
  • NIHR liaison